

21/49T104

NIKHAJEV G. A.

USSR/Mining Methods  
Mining Equipment

Oct 48

"Metal Propping of Workings at Shaft No 31.  
Karaganda Coal Basin," G. A. Nikhayev, Mining  
Engr, 22 pp

"Mekh Trud 1 Tyazh Rabot" No 10

Describes procedure in detail, with three diagrams.  
System was introduced in Apr 1947. Production  
of steel props should be increased and weight  
reduced.

21/49T104

L 10658-66 ENT(1) IJP(c) AT

ACC NR: AF5028308

SOURCE CODE: UR/0057/65/035/011/1960/1971

AUTHOR: Nikheylovskiy, A.B.; Pashitskiy, E.A.

ORG: none

TITLE: On the theory of the stability of an ion beam injected transversely to a magnetic field into a plasma

SOURCE: Zhurnal tekhnicheskoy fiziki, v. 35, no. 11, 1965, 1960-1971

TOPIC TAGS: plasma instability, plasma beam interaction, magnetic trap, magnetic mirror, ion beam, plasma injection, *plasma magnetic field*

ABSTRACT: The authors discuss the stability of a nearly monoenergetic ion beam injected transversely to the magnetic field into a magnetic trap containing a plasma with a Maxwell distribution of electron and ion velocities. The discussion is applicable to the case of a trap in which ions are continuously injected, because the captured ions quickly reach a Maxwell-like velocity distribution owing to the strong instabilities that develop. The dispersion equation is derived for a monoenergetic beam and a uniform magnetic field, and the roots are derived and discussed for frequencies near harmonics of the ion Larmor frequency and for frequencies in the continuous spectrum far above the ion Larmor frequency but below the electron Larmor frequency. Oscillations near the ion Larmor frequency are found to be unstable even for very low beam densities, and even when longitudinal ion velocities and cyclotron damping are taken into account. The high frequency oscillations are stable for

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ACC NR: AP5028308

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sufficiently low beam density (or sufficiently high plasma density). The effect of the longitudinal inhomogeneity of the magnetic field is discussed, the frequencies of the oscillations being found by equating to an integral multiple of  $\pi$  the integral along a line of force between the reflection points of the longitudinal component of the wave vector. When longitudinal ion velocities and cyclotron damping are taken into account, the longitudinal inhomogeneity of the magnetic field is found to increase the critical beam density above which instability occurs. The effect of a distribution of beam ion velocities (energy inhomogeneity) is also discussed, and it is shown that this, too, tends to stabilize the system. It is concluded that injection into a magnetic trap of a monoenergetic ion beam transversely to the magnetic field can excite oscillations over a wide range of frequency and wavelength, and these can give rise to large anomalous turbulent diffusion. Means exist, however, for partially stabilizing some of these oscillations. In particular, the long wavelength ion cyclotron oscillations are stabilized for sufficiently low beam density by a low plasma ion temperature, and the high frequency oscillations in the continuous spectrum are stabilized by a distribution of beam ion velocities, i.e., by the use of a non-monoenergetic beam. A curved magnetic field geometry (a magnetic mirror system or a corrugated field) reduces the increment of the unstable oscillations. The authors thank V.I. Pistunovich and A.V. Timofeyev for discussing the results. Orig. art. has: 55 formulas and 1 figure. 47,55

SUB CODE: 80

SUM DATE: 04Feb65/

ORIG. REF: 004

OTH REF: 000

HW  
Card 2/2

SHEVCHENKO, V., konstruktor (Frunze); LEVENOK, A.; PLODUKHIN, A.  
(Saransk, Mordovskoy ASSR); NIKHEL'MAN, A.; MART'YANOV, I.  
(Ivanovo); VETROV, A., mekhanik (Stavitskiye Novki, Vladimirskaya  
oblast')

From reader to reader. Tekh.mol. 31 no.2:28-29 '63.

(MIRA 16:6)

1. Buzinskiy sovkhos, Kunashakskiy rayon, Chelyabinskaya  
oblast', (for Nikhel'man).

(Technological innovations)

NIKHINSON, A. G.

Nasopharynx

Spatula-cannula for the irrigation of the ansopharynx. Vest. oto-rin., 14, No. 2, 1952.

Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified.

NIKHINSON, A.G.

Age factor in anatomy of the nasopharynx. Vest. otorinolar., Moskva  
14 no.6:76-77 Nov-Dec 1952. (GIML 23:4)

1. Candidate Medical Sciences. 2. Of the Department of Operative  
Surgery (Head -- Prof. M. K. Gitis), Omsk Medical Institute.

WIKKINSON, A. G.

Ear - Diseases

Otitis in dispepsia and dysentery in infants. Vop. pediat. 1 Jahr. Int.  
1 det. 20 No. 3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, September 1954 ~~1953~~, Uncl.

NIKHINSON, A.G., kandidat meditsinskikh nauk

Laryngeal cyst. Vest.oto-rin. 19 no.2:114-115 Mr-Apr '57.  
(MLRA 10:6)

1. Iz 1 gorodskoy klinicheskoy bol'nitsy g. Omska.  
(LARYNX, cyst  
surg. (Rus))

NIKHINSON, A.G.

Morphological changes in the tonsils in tularemia and brucellosis.  
Sov.med. 21 Supplement:25 '57. (MIRA 11:2)

1. Iz 2-y infektsionnoy gorodskoy klinicheskoy bol'nitsy Omska.  
(TONSILS--DISEASES) (TULAREMIA) (BRUCELOSIS)

NIKHINSON, A.G., kand.med.nauk (Omsk)

Cardiac reflex from the upper respiratory tracts. Kaz.med.zhur.  
40 no.5:117 S-O '59. (MIRA 13:7)  
(RESPIRATORY ORGANS) (REFLEXES)

NIKHINSON, A.G., kand.med.nauk

Unconditioned reflex interrelations of different areas of the upper respiratory tract and their role in the pathogenesis of angina.  
Zhur. ush., nos. i gorl.bol. 22 no.1:4-8 Ja-F '62. (MIRA 15:5)

1. Iz Otorinolaringologicheskoy kafedry (zav. - prof. V.G.Yermolayev)  
Leningradskogo ordena Lenina instituta usovershenstvovaniya vrachev  
i iz 1-y gorodskoy klinicheskoy bol'nitsy g.Omska (glavnyy vrach  
O.B.Vinogradova).

(REFLEXES)

(RESPIRATORY ORGANS)

(THROAT---DISEASES)

NIKHINSON, A.G., kand.med.nauk

Some data on the physiology of the acoustic analyzer. Zmr.usb.,  
nos.1 gorl.bol. 22 no.4:88-91 J1-4g '62. (MIRA 1642)  
(ACOUSTIC NERVE)

NIKOLSON, I. P.

25076 Nikolson, I. P. C. 1. Positivnyy na Leningradskiy 1944 II.  
I. P. Nikolson I B. M. Pankinskiy. Vostok - 1944 II, 1944, 1944,  
S. 11-12

1944: 1944 1944 1944, 1944, 1944, 1944

NIKHINSON, I.M.  
25876

O Leptospiroznykh Zabolevaniyakh Soobshch. II I.M. Nikhinson I B.N. Pakhinskiy.  
Voyen.-Med. Zhurnal, 1948, No.6, S. 45-49

SO: LETOPIS NO. 30, 1948

NIKHINSON, I.M., podpolkovnik meditsinskoy sluzhby; LEV, A.S., podpolkovnik  
meditsinskoy sluzhby

Some data on the role of the water factor in the epidemiology of  
dysentery. Voen.-med. zhur. no.4:59-60 Ap '56. (MLRA 9:9)  
(WATER--BACTERIOLOGY) (DYSENTERY)

NIKHINSON, I. M.

"Collection of Air Samples With the Help of a Filter Cartridge and Gas Mask to Detect Microflora," by I. M. Nikhinson, I. A. Katsnel'son, and R. D. Gorodetskiy, Voyenno-Meditsinskiy Zhurnal No 11, Nov 56, pp 54-55

"We proposed and tested the filter cartridge of a filtering gas mask to simplify the method of collecting air samples, especially under field conditions, for the purpose of observing microorganisms, rickettsiae, and viruses in the samples.

"The filter cartridge is a tin cylinder 1.8 cm in diameter and 2.5 cm high. The bottom of the cylinder has 10-20 openings. The other end is open.

"On the interior surface of the grid of the cartridge, a pad consisting of six layers of gauze is closely compressed by a bottomless cylinder 4.5 cm high which is set inside the first cylinder (the dimensions of the cartridge can be varied depending on the size of the openings in the casing of the gas mask). The converted filter cartridge is wrapped in paper or placed in a metal or wooden covering and sterilized.

54M-1345

NIKHINSON, IM.

"Before collection of air samples, the sterile cartridge, removed from the paper, is set into the opening in the bottom of the gas mask housing. From 5 to 6 minutes after use of the gas mask with the filter cartridge has begun, the cartridge is removed and taken into a bacteriological laboratory. Smears are prepared from the suspension obtained by washing the six-layer gauze with physiological solution; seeding and infection of animals are carried out with the suspension.

"We conducted 95 bacteriological analyses of air in rooms of the barracks. Samples were taken while the barracks was occupied. Air was simultaneously investigated by D'Yakanov's method. A D'yakanov flask was connected to the gas mask. A gas meter permitted us to establish the fact that a man in a gas mask equipped with a filter cartridge inhales 6 liters of air per minute. The same volume of air is inhaled if a D'yakanov flask is attached to the gas mask. One ml of suspension was seeded on a Petri dish containing agar. The seedings afforded the growth of microorganisms encountered in the air (Sarcina, Staphylococcus, gram-positive bacilli, molds, and fungi).

"The same microorganisms were isolated from the air with the filter cartridge as were isolated when samples were collected with the D'yakanov flask. In 22 air samples, the quantity of microorganisms was found to be greater on collection with the filter cartridge; in 53 samples, the quantity was only slightly greater than that found in samples collected by the D'yakanov method; in 20 samples, analogous results were obtained.

54M.1345

NIKHINSON, I.M.

Fifteen air samples were taken in the barracks immediately after the personnel had arisen, and the same number were taken after the quarters had been ventilated. Ventilation decreased the microbial content of the air in the barracks 2-2.5 times.

"With the help of the filter cartridge the unit physician can check the ventilation in the barracks. The simplified method of collecting air samples can be employed for determining the species content of the microflora. We investigated the air in a laboratory box after dispersing a suspension of *Staphylococcus aureus* and intestinal bacilli in it. These microorganisms always infected the gauze packing of the filter. The filter cartridge can also be used expediently under field conditions in cases where rapid collection of air samples for detecting microflora is required." (U)

Sum. 1345

Country : USSR

E

Category: Virology. Viruses of Man and Animals. Rickettsias.

Abstr Jour: Ref Zhur-Biol., No. 23, 1958, No 103590

Author : Nikhinson, I.M.; Kambur, I.B.; Savchenko, E.A.

Inst : -

Title : "Q" Fever in Sakhalin

Orig Pub: Zh. mikrobiol., epidemiol. i immunobiol., 1958, √  
No 2, 51-54.

Abstract: No abstract.

Card : 1/1

KRICHEVSKIY, A.Yu.; NIKHINSON, I.M.

A case of ornithosis. Vrach.delo no.2:191 F '59.

(MIRA 12:6)

1. Klinika infektsionnykh bolezney (zav. - prof.I.R.Brande  
[deceased]) Khar'kovskogo meditsinskogo instituta i oblastnaya  
sanitarno-epidemiologicheskaya stantsiya.  
(ORNITHOSIS)

NIKHINSON, I.M.; DOBRAYA, T.Ye.; YASHEK, Kh.N.

Virological and serological features of the influenza outbreak in  
Kharkov and districts of Kharkov Province in the first quarter of  
1959. Vop. virus. 5 no. 6:751 N-D '60. (MIRA 14:4)  
(KHARKOV PROVINCE—INFLUENZA)

NIKHLINSON, I.M.; BASKOVICH, TS.L.; SHVETS, TS.I.

Method for the bacteriological study of convalescents and those  
who have had dysentery. Lab. delo 7 no.12:36-37 D '61. (MIRA 14:11)

1. Khar'kovskaya oblastnaya sanitarno-epidemiologicheskaya  
stantsiya (glavnyy vrach I.I.Chernov).  
(DYSENTERY)

ACC NR: AP6031640

(A)

SOURCE CODE: UR/0240/66/000/009/0080/0081

AUTHOR: Nikhinson, I. M.; (Candidate of medical sciences; Khar'kov);  
Gorodetskaya, V. M. (Khar'kov); Kurasova, Zh. V. (Khar'kov)

ORG: none

TITLE: Phage typing pathogenic staphylococci

SOURCE: Gigiyena i sanitariya, no. 9, 1966, 80-81

TOPIC TAGS: staphylococcus, pathogen, phage, typing, diagnostic medicine,  
bacteriology, bacteriophage

ABSTRACT: Staphylococci isolated from human feces were phage typed into  
three basic groups and then into subgroups. This method was  
compared with results of standard tests and found to be faster  
and more accurate. [WA-50; CBE No. 12]

SUB CODE: 06/ SUBM DATE: 29Jan66/ ORIG REF: 004/

UDC: 576.851.252.06.077.5

Card 1/1

**AUTHOR** NIKHINSON L.M., Chief Bureau of Mechanization PA - 3060  
**TITLE** Mechanization of work intensive processes.  
 (Mekhanizatsiya trudoyemkikh protsessov.- Russian)  
**PERIODICAL** Metallurg 1957, Vol 2, Nr 4, pp 29 - 30 (USSR)  
 Received: 5/1957 Reviewed: 7/1957  
**ABSTRACT** The circumstance that future mechanization was not taken into account when the Kuznetsk Metallurgical Combine was built makes this mechanization extremely difficult. Nevertheless, much progress has been made in the postwar years. 982 different measures made it possible to withdraw and use otherwise about 3000 workers and to make easier the work of 5000 others. A reserve of performance increase is the cutting of the time of furnace lay-offs at repairs. Here it was possible by mechanization and better organization to save about 4.5 days per blast furnace. The Martin furnaces have the shortest interruptions in their work in the entire USSR. The workers of the coke furnaces showed much zeal and initiative in finding a special mechanized settler for the exchange of the mountings of the regenerators of the coke furnaces without interrupting the operation of the furnaces. Nevertheless much still has to be done. The plants and the specialized institutes must work out efficient methods of cooling the furnaces after they have

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**Mechanization of work intensive processes.**

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been laid off. Many interesting devices have been introduced in the rolling mills of the Combinate: manipulatory rulers with pneumatic drive at the lifting platforms of the fine staging of the plate-rolling mill, mechanical edgers for semifinished material and ingots, etc. Many stages of production formerly were bottlenecks because they had to be done manually. Under difficult conditions of the plant which was under continuous operation the conveyance of rails to the countersink was mechanized (by means of tractors and roll tables) resulting in the availability of 112 workers of other purposes and in an increase of the performance by 50 %. Simultaneously the weight of the rails was increased to 75 kg per running meter. Nevertheless, a complete modernization of the rolling trains still is lacking. Loading and unloading are already highly mechanized. In order to make a mechanization in the transport division possible, the depots for raw materials and fuel had to be reconstructed, new types of wagons had to be created and old ones rebuilt. The degree of mechanization rose to 94 %. But even here many things still have to be done. At present, mechanization of the work in the forehearth trench of the blast furnace is under

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Mechanization of work intensive processes.

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review, as well as a widening of the openings for steel discharge, the elimination of mounted bricks from the regenerators of the Martin furnaces, cleaning of the doors of the coke furnaces, etc. Many work intensive operations of the cleaning of the rolling products have not yet been mechanized: punching, sorting and packing. Many things still are imperfect. Not only the Combine is interested in improvements. The paper under review expresses regret that no help is forthcoming from the Ministry of Iron Metallurgy. Neither standard machines nor transport equipment are supplied by the Ministry so that the Combine itself had to construct a freight car in its Transport Division and a mobile excavating machine still is needed so that soil has to be moved by manual work. (! reproduction)

ASSOCIATION: Kuznetsk Metallurgical Combine, Stalinsk.  
(Kuznetskiy Metallurgicheskiy Kombinat, Stalinsk - MKM)

PRESENTED BY: -

SUBMITTED: -

AVAILABLE: Library of Congress.

CARD 3/3

NIKHINSON, Yu.I., inzh.; TESLENKO, L.F., inzh.

Preparing the welding wire for welding in carbon dioxide.  
Svar. proizv. no.6:39 Je. '63. (MIRA 16:12)

1. Khar'kovskiy traktorosbornochnyy zavod.

ZOGRAFKI, Str.; NIKHTIANOV, Khr.; DASHEV.G.

Successful surgery of a case of pheochromocytoma. Khirurgiia (Sofia) 16 no.10:959-961 '63.

1. Iz katedrite po bolnichna khirurgiia i po endokrinologiia i bolesti na obmianata pri ISUL, Sofia.

GRUNER, Matilda, inz.; NIKIC, Milutin, inz.; FILAJDIC, Mirko, dr.inz.

Color of nitrosomyoglobin during the processing of frankfurters.  
Kem ind 12 no.9:665-669 S '63.

1. Biotehnoski odjel, Tehnoski fakultet, Zagret.
2. Clan Redakcionog odbora, "Kemija u industriji" (for Filajdic).

S/076/63/037/001/011/029  
B101/B186

AUTHORS: Kondrat'yev, V. P., Nikich, V. I. (Moscow)

TITLE: Electrical conductivity of aqueous solutions of alkaline earth chlorides at high temperatures

PERIODICAL: Zhurnal fizicheskoy khimii, v. 37, no. 1, 1963, 100-105

TEXT: The data on the electrical conductivity  $\kappa$  of aqueous solutions of  $MgCl_2$ ,  $CaCl_2$ , and  $SrCl_2$  in molal concentrations of 0.05 - 1.0 m and 0.5 m  $BaCl_2$  at 25 - 300°C, which so far have not been published, were calculated and are here tabulated. At rising temperature  $\kappa$  was found to pass a maximum.  $\kappa = Ac^k \exp \left[ B(T_{max} - T)^2/T \right]$ , where  $c$  is the molal concentration, and  $A$ ,  $B$ ,  $k$  are empirical constants, is valid in the above range of temperatures and concentrations. The occurrence of  $\kappa_{max}$  at a certain temperature is explained by the assumption that the dissociation of the electrolytes decreases as the temperature increases. At lower temperatures the salts are completely dissociated, their  $\kappa$  depends on the

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Electrical conductivity of aqueous ...

S/076/63/037/001/011/029  
B101/B186

radius of the solvated ion, i. e. on its mobility, and forms the sequence  $Mg^{2+} < Ca^{2+} < Sr^{2+} < Ba^{2+}$ . The mobility increases and the amount of the dissociated ion decreases as the temperature rises. Hence,  $\kappa_{max}$  occurs at a certain temperature. Besides, hydrolysis takes place at high temperatures causing the appearance of highly mobile  $H^+$  ions. The sequence  $MgCl_2 > CaCl_2 > SrCl_2 > BaCl_2$  holds for  $\kappa$  at 0.05 m, owing to the different tendency of the studied alkaline earth compounds to hydrolyze. There are 6 figures and 4 tables. ✓

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskii institut im. D. I. Mendeleyeva (Moscow Institute of Chemical Technology imeni D. I. Mendeleyev)

SUBMITTED: September 27, 1961

Card 2/2

NIKICH, V.I.; GORBACHEV, S.V.

Specific gravity of electrolyte solutions in anhydrous acetic acid at high temperatures. Trudy MKHTI no.44:41-44 '64.

(MIRA 18:1)

Specific conductivity of electrolyte solutions in anhydrous acetic acid at high temperatures. Ibid.:45-49

KORST, N.N.; NIKICH-KRILICHEVSKIY, O.A.

Relaxation equations for the magnetic moment of a bound spin system. Teoret. i eksper. khim. i no.4:505-510 '65.

(MIRA 18:10)

1. Institut khimicheskoy fiziki AN SSSR, Moskva.

**NIKIEL, Nikodem**

Histoplasmosis. Polski tygod. lek. 11 no.3:126-130  
16 Jan 56.

1. Z II Oddz. Chorob Wewnet. I.D.S. K.L. w Warszawie.  
kier. prof. dr. med. Walenty Hartwig, Wągrowiec, ul.  
Jednosc 8 m. 1.  
(HISTOPLASMOSIS  
review.

NOWAK, Karol, mgr inz.; WILCZYŃSKA, Jadwiga, inz.; NIKIEL, Stefan

Biuret as an impurity in fertilizing urea. ~~Chemik 16 no.7/8:~~  
189-192 J1-Ag '63.

1. Zakłady Azotowe, Kedzierzyn.



CA

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*Masscutes boiling with hot air. S. Nibbel. Ges. Chhemisches 60, 223-9(1930).—Expts. on variations of Morse's process of blowing hot air into masscutes during evapn., for heating and for promoting circulation, are described. A coil of hot-air distribution pipes was placed in the (lowered) bottom of the evaporator, under the calandria; the pipes were flattened in the vertical plane, with holes (3 mm. in diam.) on either side, 0.25 in. from the bottom edge, to prevent choking by sugar and to facilitate cleaning by steam; the air was blown in at 0.2-0.4 atm. over atm. pressure through a horizontal tube heater and a tank where steam could be introduced at will; further details of the equipment are given. Heating by hot air only at atm. pressure gave good circulation, and caused premature crystallization (after 2 hrs. 40 min. at 84° Brix and 1.33 supernatn.), attributed to nucleation by fine crystals in the entering air; to prevent over-rapid evapn. and the formation of false grain, steam was then blown in with the air for 2 hrs.; evapn. was slower than normal, but the masses dropped easily, and the crystals were of good quality (90% 0.5-1.8 mm. in size). With initial normal vacuum-pan boiling, followed by hot-air blowing at atm. pressure, low-grade boilings gave a molasses of 66 purity on centrifuging, without the use of mixers; analytical data are tabulated; foam formed under these conditions was very persistent in the masscutes and in the run-off syrup, and interfered with sampling for analysis; de-aeration was difficult, even under vacuum; foaming was least troublesome with low-grade boilings; the use of larger evaporators and mixers to allow for foaming is suggested. Oxidation of the sugars and nonsugars gave a pleasant vanilla-like odor to the masscutes, syrup, and molasses, which decreased on storage of the masscutes. The heat balance in the process is discussed. B. A.*

~~SECRETARY~~  
NIKIEL, S.

A quick and simple method for invert-sugar estimation.  
Stanislaw Nikiel: Gaz. Chemiczna 67, 91-2(1935).  
The method is based upon one previously described by Main  
(Intern. Sugar J. 34, 219, 480(1932)) which utilizes reduction  
of  $K_2Fe(CN)_6$  in an alkaline medium. Methylene blue is  
used as indicator. Less than 0.3% invert sugar can be  
detd. in refined sugar.  
A. H. Koffler

PM  
JES

400

NIKIEL, STANISLAW

POLAND/Chemical Technology. Chemical Products and Their Application.  
Carbohydrates and Refinement.

H-26

Abs Jour: Referat Zhur-Khimiya, No 5, 1958, 15912

Author : Nikiel Stanislaw

Inst :

Title : What Is New in the Chemistry of Saccharose and Non-Sugars.

Orig Pub: Gaz. cukrown., 1956, 58, No 10, 229.

Abstract: Brief information concerning the possibility of obtaining from sugar various derivatives which can be utilized as detergents, emulsifying agents, plastics and explosives. A brief description of the methods of production and principal characteristics of the following: acetyl saccharose, allyl saccharose, sorbitol, mannitol, betaine, riboflavin, levulinic acid, etc.

Card : 1/1

WILCZYŃSKA, Jadwiga // inż. NIP 141, Stefan

remarks on the possibility of producing plant growth regulators.  
Chemik 18 no.1:28-29 Ja '65.

1. Nitrogen Works II, Kedzierzyn.

NIKIEL, T.

Modernization of steam turbines. p. 236.

ENERGETYKA, Vol. 9, No. 5 Sept./Oct. 1955

(Ministerstwo Energetyki) Stalinograd.

SOURCE: EAST EUROPEAN ACCESSIONS LIST Vol. 5, No. 1 Jan. 1956

NIKIEL, Tadeusz

Turbiny Parowe (Steam Turbines). Warsaw: Państwowe Wydawnictwa Techniczne, 1967.

55M/6  
667.13  
.N6

JEDYNAK, Mieczyslaw, inz.; RUBASZOWSKI, Tadeysz, inz.; BIALY, Adam, inz.  
BOTWINA, Mieczyslaw, inz.; MARTLA, Ludwik, inz.; NIKIEL,  
Tadeusz, inz.; LIZEWSKI, Wacław, inz.

Increasing the maximum power of 55 MW Skoda steam turbines during the peak period by 3 MW, during 3 hours, for each turbine. Increasing the maximum power of 20 MW Alsthom steam turbines during the peak period by 1 MW, during 3 hours, for each turbine. Gosp paliw 11 Special issue no.(95):58 Ja '63.

1. Elektrownia Stalowa Wola.

SAPOZHNIKOVA, S.A.; MEL', M.I.; SMIRNOVA, V.A.; NIKIFONOVA, A.T.

Evaluating the climatic and agricultural resources of the U.S.S.R.  
Trudy NIIAK no.2:78-115 '57. (MIRA 11:9)  
(Crops and climate)

NIKIFORENKO, N., mayor tekhnicheskoy sluzhby

Automatic-control attachment. Voen.vest. 43 no.10:94-95 0  
'63. (MIRA 16:12)

AUTHOR: Nikiforenko, N.N.

SOV/68-58-10-6/25

TITLE: A Universal Automatic Sampling Installation for Coke and Coal (Universal'nyy avtomaticheskii probotbornik koksa ili uglya)

PERIODICAL: Koks i Khimiya, 1958, Nr 10, pp 19 - 20 (USSR)

ABSTRACT: An automatic sampling installation for coke and coal taking samples from a stream of material falling from a conveyor belt by diverting the falling material at pre-determined time intervals into a sampling vessel is described and illustrated. The sampling installation and its electrical scheme are shown in Figures 1 and 2, respectively. It is claimed that the installation operates on the Kharkov Coking Works with satisfactory results. There are 2 figures.

ASSOCIATION: Khar'kovskiy koksokhimicheskii zavod (Kharkov Coking Works)

Card 1/1

GESTRIN, N.P. [Hestryn, N.P.]; NIKIFORENKO, V.A. [Nykyforenko, V.A.]

Improving the production of polyacrylamide in the Mizoch and Sambor  
sugar factories. Kharch.prom. no.4:16-20 O-D '63. (MIRA 17:1)

L 06590-67 EWT(d)/EWT(m)/EWP(w)/EWP(j)/EWP(t)/ETI/EWP(k) IJP(c) JD/EM/RM/JH

ACC NR: AP6029852

(N)

SOURCE CODE: UR/0032/66/032/008/0962/0965

AUTHOR: Budenkov, G. A.; Nikiforenko, Zh. G.; Shkol'nik, I. E.

ORG: All-Union Scientific Research Institute for the Development of Nondestructive Methods and Means of Controlling the Quality of Materials (Vsesoyuznyy nauchno-issledovatel'skiy institut po razrabotke nerazrushayushchikh metodov i sredstv kontrolya kachestva materialov)

TITLE: An estimate of the stress state of a material with the aid of ultrasound

SOURCE: Zavodskaya laboratoriya, v. 32, no. 8, 1966, 962-965

TOPIC TAGS: stress analysis, ultrasonic wave, ultrasonic wave propagation, anisotropic medium, elasticity theory, elastic stress

ABSTRACT: A method was developed for determining the mechanical stress in solid bodies according to their anisotropic parameters. Third-order nonlinear elastic equations were given relating stress to deformation and to the speed of three-dimensional shear waves. The latter equations showed that in the presence of stress, solid bodies are governed by anisotropic elasticity. The experimental and theoretical dependence between elastic stresses and the shear parameters of elastic oscillations in various materials was developed from the frequency ultrasonic polarization method of measuring internal stresses in solids. Elastic anisotropy was determined by measuring the fre-

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UDC: 620.179.16

L 06590-67  
ACC NR: AP6029852

quency. The emitter and receiver were positioned so that the direction of the oscillation feed would remain at an angle of  $\pi/4$  with the principle plane. In this case, the amplitude of electrical oscillations impinging on the receiver varied according to a cosine law. The change in frequency for a constant path length of elastic oscillations in anisotropic media is given as a function of the relative change in velocity of the shear wave ( $\Delta v/v_g$ ). A block diagram of the experimental apparatus is given. Testing was done on samples of organic glass, a D16T aluminum alloy, and fine-grained concrete. Prismatic samples were compressed; the amplitude-frequency characteristics and the relative change in shear wave velocity are given as a function of the axial stress. From these, the third order constants  $A$  and  $B$  were determined, where  $A = -(\Delta v/v \cdot 8\mu^2/\sigma + 4\mu)$ . The dependence of  $\Delta v/v_g$  on stress is linear and is represented by the equation

$$\Delta v/v_g = \sigma/8\mu^2 (4\mu + A).$$

The relative error in the method was 2-3%. The cause of anisotropy was preferred orientation due to rolling. Orig. art. has: 4 figures, 9 formulas.

SUB CODE: 11,20/ SUBM DATE: none/ ORIG REF: 002/ OTH REF: 005

Ultrasonic Applications

Card 2/2 LS

ACC NR: AP6021473

SOURCE CODE: UR/0413/66/000/011/0094/0094

INVENTOR: Zhuravel', V. I.; Minakov, V. I.; Bobrov, V. T.; Dimitraki, P. N.; Niki-forenko, Zh. G.; Budenkov, G. A.; Gitis, M. B.

ORG: None

TITLE: An ultrasonic pulse-shadow immersion flaw detector. Class 42, No. 182390 [announced by the All-Union Scientific Research Institute of Nondestructive Methods for Material Quality Control (Vsesoyuznyy nauchno-issledovatel'skiy institut neraz-rushayushchikh metodov kontrolya kachestva materialov)]

SOURCE: Izobreteniya, promyshlennyye obraztsey, tovarnyye znaki, no. 11, 1966, 94.

TOPIC TAGS: flaw detection, ultrasonic flaw detector, quality control

ABSTRACT: This Author's Certificate introduces: 1. An ultrasonic pulse-shadow immersion flaw detector which contains an ultrasonic probe unit, line scanning mechanism, oscillator and ultrasonic amplifier. The unit is designed for increased productivity in checking parts of complex shape. The installation incorporates an electronic unit which generates a control signal after the ultrasonic probe unit passes beyond the outline of the part being checked. This signal controls the line scanning mechanism and temporarily disconnects the receiving head from the amplifier. 2. A modification of this flaw detector in which the electronic unit is made in such a

Card 1/2

UDC: 620.179.16.C8

ACC NR: AP6021473

way that when there is a single pair of ultrasonic probes in the installation the receiver head is disconnected from the amplifier during the period when the probe unit is returning to the article being checked. 3. A modification of this flaw detector in which the electronic unit is made in such a way that when there are two pairs of ultrasonic probes located one behind the other along their line of motion in the installation, the receiver head disconnected from the amplifier is the one which first passes beyond the outline of the part being checked. This receiver head is connected when the second pair of probes passes beyond the outline of the part on the return travel of the probe unit.

SUB CODE: 09, 13/ SUBM DATE: 07Dec64

Card 2/2

NIKIFOROV, A., laureat Gosudarstvennoy premii

Attention, toxic chemicals! Okhr. truda i sots. strakh. 7 no.2:28  
F '64. (MIRA 17:2)

L 54849-65

ACCESSION NR: AP5014673

UR/0348/65/000/006/0024/0025  
632.952

AUTHORS: Korolev, P. (Engineer, Chemist); Nikiforov, A. (Agronomist)

TITLE: Promising fungicides

SOURCE: Zashchita rasteniy ot vreditel'ey i bolezney, <sup>10</sup>no. 6, 1965, 24-25

TOPIC TAGS: agriculture, fungus, fungicide

ABSTRACT: In recent years the MSKh SSSR State Committee for chemical means of controlling agricultural pests, diseases, and weeds has tested foreign and domestic fungicides. It recommends the release of the following types. N-trichloromethylthiotetrahydrophthalamide, 2,3-dichloro-naphthoquinone-1,4-, mercuriohexane (1% ethylmercuriochloride, 20% hexachlorobenzene, 12% gamma isomer OKhTsG, and 67% filler), phthalane (the active part of N-trichloromethylthiophthalamide), copper oxychloride, zinc ethylenebisdithiocarbamate, and zinc dimethyldithiocarbamate. The article contains physical descriptions, the necessary amounts, the modes of application, the times of application, the action, and other characteristics of the above substances.

ASSOCIATION: none

Card 1/2

L 54849-65

ACCESSION NR: AP5014673

SUBMITTED: 00

ENCL: 00

SUB CODE: LS

NO REF SOV: 000

OTHER: 000

Card *gm*  
2/2

NIKIFOROV, A.A.

Tractor "Stalinets-80" 2. izd. Moskva, Gos. izd-vo sel'khoz. lit-ry. 1948. 150 s.  
(51-15494)

FL233.042 1948

NIKIFOROV, A.M. (Moskva); MAMAYEV, K.A. (Moskva)

Chemical weeding. Biol. v shkole no.3:69-71 My-Je '61. (MIRA 14:7)  
(Herbicides)

NIKIFOROV, A.M.

Plenum of the State Committee for Poisonous Chemicals. Zashch.  
rast. ot vred. i bol. 6 no.5:58-59 My '61. (MIRA 15:6)  
(Insecticides) (Pesticides) (Herbicides)

KRYUKOV, G. P.; WIKIFOROV, A. M.; PETRUSHOVA, N. I., starshiy nauchnyy  
sotrudnik; GRANIN, Ye. F., nauchnyy sotrudnik

Questions and answers. Zashch. rast. ot vred. i bol. 6 no. 6:  
39-40 Je '61. (MIRA 16:4)

1. Zaveduyushchiy otdelom okhrany truda TSentral'nogo komiteta  
professional'nogo soyusa rabochikh i slushashchikh sel'skogo  
khoz'yaystva i zagotovok (for Kryukov). 2. Wikipitskiy botani-  
cheskiy sad, Yalta (for Petrushova). 3. Nauchno-issledovatel'-  
skiy institut po udobreniyam i insektofungitsidam imeni  
Sanoyleva (for Granin).

(Plants, Protection of)

NIKIFOROV, A.M.

Extensive experiments with agricultural chemicals. Zemledelie 23  
no.6 '91-92 Je '61. (MIRA 14:6)

1. Glavnyy agronom Gosudarstvennoy komissii po khimicheskim  
sredstvam bor'by s vreditelyami, boleznyami rasteniy i sorn-  
yakami pri Ministerstve sel'skogo khozyaystva SSSR.  
(Agricultural-chemicals)

NIKIFOROV, A.M.; SERBINOV, V.I., dotsent

Questions and answers. Zashch. rast. ot vred. i bel. 6  
no.10:45 0 '61. (MIRA 16:6)

1. Tashkentskiy sel'skokhozyaystvennyy institut.  
(Plants, Protection of)

KIRYUKHINA, R.I.; NIKIFOROV, A.M.; TIKHONOV, N.P., entomolog

Congresses and conferences. Zashch. rast. ot vred. i bol.

7 no.2:55-56 F '62.

(MIRA 15:12)

1. Starshiy fitopatolog Tsentral'noy karantinnoy laboratorii  
Ministerstva sel'skogo khozyaystva SSSR (for Kiryukhina).  
(Plants, Protection of--Congresses)

NIKIFOROV, A.M.

Replenishing the assortment of poisonous chemicals. Zashch. rast.  
ot vred. i bol. 7 no.3:35-36 Mr '62. (MIRA 15:11)  
(Insecticides) (Herbicides)

NIKIFOROV, A.M., laureat gosudarstvennoy premii

New preparations for the distribution of seeds. Zemledelie 24  
no.4:46-47 Ap '62. (MIRA 15:4)  
(Seeds--Disinfection)

NIKIFOROV, A.M.

Replenishing the assortment of poisonous chemicals (continuation).  
Zashch. rast. ot vred. i bol. 7 no.7:35-36 JI '62. (MIRA 15:11)  
(Agricultural chemicals)

NIKIFOROV, A.M., agronom; ZUBOV, M.F., fitopatolog

Questions and answers. Zashch. rast. ot vred. i bol. 7  
no.12:40 D '62. (MIRA 16:7)

1. Nauchno-issledovatel'skiy institut po udobreniyam i insekto-  
fungitsidam imeni Ya.V. Samoylova.  
(Insecticides) (Fungicides)

NIKIFOROV, A.M.

In the State Commission on Poisonous Chemicals. Zashch. rast.  
ot vred. i bol. 7 no.12:56-57 D '62. (MIRA 16:7)

(Insecticides) (Fungicides)

KACHALOVA, Z.P., kand. sel'khoz. nauk; KHARITONOV, D.M. Prinimali  
uchastiye: MAMAYEV, K.A., agronom; NIKIFOROV, A.M., agronom;  
CHELYSHKIN, Yu.G., red.; DEYEVA, V.M., tekhn. red.

[Controlling pests and diseases of field crops] Bor'ba s vre-  
diteliymi i bolezniami polevykh kul'tur. Moskva, Sel'khoz-  
izdat, 1963. 207 p. (MIRA 16:5)  
(Field crops--Diseases and pests)

NIKIFOROV, A.M.

Rates for seed disinfection. Zashch. rast. ot vred. i bol. 8  
no.2:37-38 F '63. (MIRA 16:7)  
(Seeds--Disinfection)

KOROLEV, P.A.; NIKIFOROV, A.M.; SHAPIRO, I.D.; VILKOVA, N.A.; DROZDOVSKIY, E.M.

Questions and answers. Zashch. rast. ot vred. i bol. 8 no.2:  
39-40 F '63. (MIRA 16;7)

(Plants, Protection of)

NIKIFOROV, A.M.; ZARING, P.V. [deceased]; MILOVIDOVA, N.D., red.;  
STREL'TSOVA, N.P., red.; KANTOROVICH, A.P., tekhn. red.

[Pests and diseases of sugar beets] Vrediteli i bolezni  
zakharnoi svekly. 2. izd. Leningrad, Sel'khozizdat,  
1963. 34 p. (MIRA 17:4)

NIKIFOROV, A.M.; GOLUBEVA, I.A., red.; PECHENKIN, I.V., tekhn.  
red.

[Chemical means for controlling plant pests, diseases, and weeds] Khimicheskie sredstva bor'by s vreditel'nyami, boleznyami rastenii i sornyakami; kratkii spravochnik. Moskva, Sel'khozizdat, 1963. 84 p. (MIRA 17:1)

1. Russia (1923- U.S.S.R.) Gosudarstvennaya komissiya po khimicheskim sredstvam bor'by s vreditel'nyami, boleznyami rasteniy i sornyakami; kratkii spravochnik. Moskva, Sel'khozizdat, 1963. 84 p. (MIRA 17:1)

NIKIFOROV, A.M.

Questions and answers. Zashch. rast. ot vred. i bol. 8 no.6.  
36 Je '63. (MIRA 16:8)

(Agricultural chemicals)

NIKIFOROV, A.M.; KOROTKIKH, G.I., kand.sel'skokhoz.nauk

Questions and answers. Zashch. rast. ot vred. i bol. 8 no.7:39  
Jl '63. (MIRA 16:9)

RIDER, V.A.; POLYAKOV, M.A.; DROZDOVSKIY, E.M., kand. sel'skokhoz.  
nauk; NIKIFOROV, A.M.; NEMTSOVA, I.A., fitopatolog

Questions and answers. Zashch. rast. ot vred. i bol. 8  
no.3:37,39 Mr '63. (MIRA 17:1)

1. Nachal'nik Voronezhskoy stantsii zashchity rasteniy  
(for Rider). 2. Nachal'nik Verkhnekhavskogo otryada po  
bor'be s vreditelyami i boleznyami rasteniy (for Polyakov).

GERASIMOV, B.A.; BRUDNAYA, A.A.; KOROTKIKH, G.I., kand.sel'skokhoz.nauk;  
NIKIFOROV, A.M., agronom-entomolog

Questions and answers. Zashch. rast. ot vred. i bol. 8 no.9:  
39 s '63. (MIRA 16:10)

1. Nauchno-issledovatel'skiy institut ovoshchnogo khozyaystva,  
Moskovskaya oblast' (for Gerasimov).

KALASHNIKOV, K.Ya., kand. sel'skokhoz. nauk; BRUDNAYA, A.A., kand. sel'-  
skokhoz. nauk; ZUBOV, M.F., kand. sel'skokhoz. nauk; KOROLEV, P.A.,  
inzh.-khimik; NIKIFOROV, A.M.

Questions and answers. Zashch. rast. ot vred. i bol. 9  
no.8:34-35 '64. (MIRA 17:12)

NIKIFOROV, A.M., agronom po zashchite rasteniy; KALASHNIKOV, K.Ya.; kand. sel'-skokhoz. nauk (Pushkin, Leningradskoy obl.); ZUBOV, M.F., kand. sel'-skokhoz. nauk

Questions and answers. Zashch. rast. ot vred. 1 bol. 9 no. 9:34-35  
'64. (MIRA 17:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut khimicheskikh sredstv zashchity rasteniy (for Zubov).

2  
NIE  
DOKŁADY AKADEMII WIEDZ, AKADEMIA.

1. On the effect of combinations of etre and chlorazepate hydrochloride on the righting reflex in birds with limited injuries of the forebrain and midbrain. *Acta physiol.* vol. 15 no. 4: 559-567. 1974 - Ag 164

1. Katedry Farmacji i Farmakologii Instytutu Medycyny (Kierownik: prof. dr. N.P. Szakun.) i z Katedry Farmakologii i Farmakologii Instytutu Medycyny (Kierownik: prof. dr. V.M. Chernow).

KOVRIZHIN, A.K.; NIKIFOROV, A.I.; VAGAPOV, M.S.

Observing the manifestation of rock pressure in the rapid advancement of a stope by narrow-cut mining. Vop. gor. davl. no.18:23-29 '63.

(MIRA 18:7)

1. Kuznetskiy nauchno-issledovatel'skiy ugol'nyy institut.

NIKIFOROV, A. N.: Master Agric Sci (diss) -- "Outward and inward pressure-discharging irrigation on the chestnut soils of Transvolga". Saratov, 1958. 15 pp (Min Agric USSR, Saratov Agric Inst), 100 copies (Kb, No 13, 1959, 109)

S/148/62/000/002/008/008  
EO71/E435

AUTHORS: Vasin, Yu.P., Nikiforov, A.P.

TITLE: A new method of (quality) control of core mixes

PERIODICAL: Izvestiya vysshikh uchebnykh zavedeniy.  
Chernaya metallurgiya, no.2, 1962, 138-141

TEXT: A method of quality control of core mixes for the content of sulphite lyle at various contents of refractory clay, coarse and fine sands, based on pH measurements of aqueous extracts with an addition of alkali was developed. The method consists of the preparation of a calibration tertiary diagram (clay, sand, sulphite lyle) with curves of a constant pH which can be subsequently used for the control purposes. To increase the sensitivity of the method an addition of alkali or acid to the water extract is necessary. There are 1 figure and 1 table.

ASSOCIATION: Chelyabinskiy politekhnicheskii institut  
(Chelyabinsk Polytechnical Institute)

SUBMITTED: January 11, 1961

Card 1/1

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VASIN, Yu.P.; NIKIFOROV, A.P.

Determination of soluble glass ration by the pH value. Lit.  
proizv. no.7:38 J1 '62. (MIRA 16:2)  
(Soluble glass—Testing)  
(Hydrogen ion concentration)

VASIN, Yu.P., dotsent; NIKIFOROV, A.P., inzh.

Rapid method of determining the modulus of liquid glass by the  
value of the hydrogen index. Stroi.mat. 9 no.3:35-36 Mr '63.  
(MIRA 16:4)

(Glass)

NIKIFOROV, A.P.; VASIN, Yu.P.

Mold paste to avoid sand sticking on castings and facing mixtures  
on the basis of chromite from Don Valley deposits. Lit. proizv.  
no.8:6-7 Ag '63. (MIRA 16:10)

Subject : USSR/Aeronautics - training AID P - 5121  
Card 1/1 Pub. 135 - 6/26  
Author : Nikiforov, A. P., mil. pilot class I  
Title : Piloting the modern jet fighters  
Periodical : Vest. vozd. flota, 10, 30-35, 0 1956  
Abstract : The author discusses the problems of piloting technique of jet fighters from the take off to the landing and points out some errors made most frequently by young pilots. The article is of some interest.  
Institution : None  
Submitted : No date

NIKIFOROV, A.<sup>P</sup>. inch.-mayor.

~~Some~~ American views on the use of automatic equipment in maintaining control of units and subunits on the battlefield; review of foreign literature. Voen. vest. 37 no.1:83-90 Ja '58. (MIRA 11:2)  
(United States--Military art and science)

NIKIFOROV, A. P. inzhener-mayor

"Electronic warfare"; survey of the foreign press. Voen. vest.  
38 no.10:81-86 0 '58. (MIRA 11:10)  
(Radio, Military)

NIKIFOROV, A.P., general-major aviatsii voyenny letchik pervogo klassa

The most important thing is to improve control. Vest.Vozd.Fl.  
no.5:27-32 My '60. (MIRA 1):7)  
(Flight training)

VASIN, Yuriy Petrovich, dots.; NIKIFOROV, Aleksey Pavlovich, inzh.;  
CHERNOGOROV, Pavel Vasil'yevich, prof.; AVET, Ye.B., red.

[New method of testing molding materials] Novyi metod kont-  
rolla formovocnykh materialov. Cheliabinsk, Cheliabinskoe  
knizhnoe izd-vo, 1965. 65 p. (MIRA 17:8)

NEKIFOROV, A.P.; VASILE, Yu.P.; STARKOV, A.F.

Improving the surface smoothness of steel castings. Lit. review.  
no.3:36 Mr '64. (USSR 12:1)

NIKIFOROV, A.P.; VASIN, Yu.P.

Operative control of the quality of core sand mixtures. lit.  
proizv. no.3:40-41 Mr '64. (MIA 18:00)

VASIN, Yu.P.; NIKIFOROV, A.P.

Method of determining the modulus of water glass. Lit. proizv.  
no.4:41 Ap '64. (MIRA 18:7)

*Nikiforov, A S*

137-1958-2-2507

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 2, p 46 (USSR)

AUTHOR: Nikiforov, A. S.

TITLE: The Continuous Casting of Slender Steel Ingots With Subsequent Section-rolling Without an Intermediate Heating (Nepreryvnaya otlivka stal'nykh slitkov malykh secheniy s posleduyushchey poperechnoy prokatkoy bez promezhutochnogo nagreva)

PERIODICAL: V sb.: Nepreryvnaya razlivka stali. Moscow, AN SSSR, 1956, pp 123-128

ABSTRACT: A report is made of experience had by the "May-1st" Factory with the use of section-rolling in the continuous casting of ingots 40 and 60 mm in diameter to be employed in the manufacture of balls for grinding mills. Steel from a 1.5 ton-capacity ladle entered a water-cooled copper crystallizer 600 mm long through a casting conduit consisting of a pouring basin and a sprue preheated to 1200-1300°. The pulling of the ingot was done with rolls, below which the ingot was cooled with jets of water. At a distance from the crystallizer of 1500-1600 mm the ingot was cut into uniform pieces with a gas torch. The average casting speed for an ingot 60 mm in diameter was 2.5 - 3.0 m/min

Card 1/2

137-1958-2-2507

The Continuous Casting of Slender Steel Ingots (cont.)

Because it was difficult at high speed to control the casting operation by hand, a device was developed for the automatic control of the speed at which the ingot was pulled, also a device for regulating the flow of metal into the crystallizer. The pores which developed at the center of the ingots disappeared when the latter were being rolled into balls. An arrangement was worked out whereby the rod issuing from the casting machine, having a temperature of 850-950°, was immediately transferred to the section rolling mill and the rolled balls sent on for hardening and tempering without intermediate re-heatings

N. N.

1. Steel castings--Production methods

Card 2/2

NIKIFOROV, A.S.

Give priority to the development of the manufacture of particle  
and fiber boards. Der. prom. 11 no.7:1-3 J1 '62.

(MIRA 17:1)

1. Gosplan RSFSR.

WIKIFOROV, A.S.

Energy release from damped plates. Akust. zhur. 9 no.2:243-244  
'63. (MIRA 16:4)

1. Tsentral'nyy nauchno-issledovatel'skiy institut imeni A.M.  
Krylova, Leningrad. (Sound waves)

NIKIFOROV, A.S. (Leningrad)

Generation of directed flexural waves in plates. Akust. zhur. 9  
no.3:386-388 '63. (MIRA 16:8)

(Sound waves)

NIKIFOROV, A.S., inzh.

Assembly of equipment at a converter plant. Mont. i spets. rab  
v stroi. 25 no.11:9-12 N '63. (MIRA 17:1)

po

1. Gosudarstvennyy trest<sup>Y</sup> montazhu metallurgicheskogo  
oborudovaniya v vostochnykh rayonakh.

BUDRIN, S.V. (Leningrad); NIKIFOROV, A.S. (Leningrad)

Passage of waves through various joints of plates. Akust. zhur. 9  
no.4:408-412 '63. (MIRA 17:3)

ACCESSION NR: AP4039283

S/0046/64/010/002/0218/0223

AUTHOR: Nikiforov, A. S. (Leningrad)

TITLE: Finite dimension plate radiation with arbitrary boundary conditions

SOURCE: Akusticheskiy zhurnal, v. 10, no. 2, 1964, 218-223

TOPIC TAGS: flexible oscillation, acoustic pressure, plate energy, integral transformation, fundamental mode, acoustic impedance, characteristic function

ABSTRACT: It is assumed that a finite plate placed on an infinitely rigid screen possesses a given flexible oscillation distribution  $v(x)$ , and the acoustic pressure, generated by plate radiation in  $z > 0$ , is represented by the function  $p(x, z)$ . The

energy of the radiated plate is then given by  $\dot{W} = \frac{b}{2} \operatorname{Re} \left[ \int_{-a/2}^{a/2} p(x, 0) v^*(x) dx \right]$ , and the inverse integral transformation of the functions  $v(x)$  and  $p(x, z)$  are obtained in a series expansion of plate characteristic functions

$$v(x) \approx \frac{2}{a} \sum_{n=1}^{\infty} v(k_n) \cos k_n x; \quad p(x, z) \approx \frac{2}{a} \sum_{n=1}^{\infty} p(k_n) e^{ik_n z} \cos k_n x,$$

where  $k_n$  - wave number of  $n$ -th fundamental mode of plate vibration and  $k_z$  -

Card 1/3